

WHAT IS CLAIMED IS:

1. A money identifying method, comprising the steps of:
obtaining a surface image of money;
extracting a particular threshold calculation range of the obtained surface
5 image;
determining a density histogram of the extracted threshold calculation range;
calculating a binary threshold value for binarizing from the determined density
histogram by a discriminating analysis;
binarizing the obtained surface image of the money on the basis of the
10 calculated binary threshold value; and
identifying the money based on the binary image.

2. The money identifying method according to claim 1, wherein the step of
extracting the threshold calculation range is performed by extracting an image of a
15 predetermined area containing a feature area subject to judgment of the money and not
containing a background.

3. The money identifying method according to claim 2, wherein the money is a
coin, and wherein the step of extracting the threshold calculation range is performed by:
20 determining center coordinates and radius of the coin on the basis of the
surface image; and
extracting the image of the predetermined area on the basis of the determined
center coordinates and radius.

25 4. A money identifying device, comprising:
image obtaining means for obtaining a surface image of money;
extracting means for extracting an image of a particular threshold calculation
range of the surface image of the money obtained by the image obtaining means;

binary threshold calculation means for determining a density histogram of the image of the threshold calculation range extracted by the extracting means and calculating a binary threshold value for binarizing from the determined density histogram by applying a discriminating analysis;

5 binarizing means for binarizing the surface image obtained by the image obtaining means using the binary threshold value calculated by the binary threshold calculation means; and

 identifying means for identifying the money on the basis of the binary image binarized by the binarizing means.

10 5. The money identifying device according to claim 4, wherein the image obtaining means comprises:

 lighting means for illuminating a surface of the money; and

 image-pickup means for taking a picture of the surface of the money
15 illuminated by the lighting means.

6. The money identifying device according to claim 4, wherein the extracting means extracts an image of a predetermined area containing a feature area subject to the judgment of the money and not containing a background.

20 7. The money identifying device according to claim 6, wherein the money is a coin, and wherein the extracting means comprises:

 determining means for determining center coordinates and radius of the coin on the basis of the surface image; and

25 area extracting means for extracting the image of the predetermined area on the basis of the center coordinates and radius of the coin determined by the determining means.